Republic of Iraq
Ministry of Higher Education and Scientific Research
University of Basrah
Al-Zahraa College of Medicine

- Al-Zahraa College of Medicine
- Year 4

Block Summary
MUSCULOSKELETAL
MSK

Updated Sep. 2023

Educational aims of the block

AIMS OF THE BLOCK:

Aim of the block The general aim of this block is to equip you with the necessary knowledge, skills and attitudes for the diagnosis and treatment of musculoskeletal disorders and to enable you to enter the foundation year training and subsequent postgraduate training program with the necessary skills for the basic management of musculoskeletal conditions

The curriculum was obtained from the college of medicine, university of Kufa, which similar to that from college of medicine in Leicester University and Buckingham University.

THE WORKBOOK:

The Workbook Please read the workbook thoroughly. Benefit from the structure of the block. Remember well the time table and your main two groups (A & B), as well as your subgroup, at the start of the block. The workbook cases will be group-discussed. On the other hand, tasks ought to be completed individually or group-discussed without blue printing. You should deliver the workbook at end of block with all tasks are fulfilled. Failure to accomplish this will be reflected as bad performance and may be scored as unsatisfactory and you might be denied from entrance to the final exam.

The Log Book

THE LOGBOOK:

Separately, you will be given a log book with instruction and duties to fill in. By end of the block, you ought to deliver a completely filled log book, with tasks, procedural skills, and case presentations. As in the workbook, failure to accomplish this will be reflected as bad performance and may be scored as unsatisfactory and you might be denied from entrance to the final exam.

Attendance

A weekly attendance paper should be delivered to the block secretary at the end of each week of the block except the induction week. Each day, you need to have signed (or stamped) your attendance TWO TIMES in the subgroup activity and the afternoon activity. Consequently, 10 signed attendances should be presented by each student at end of each week. Failure to accomplish this will result in prohibition from the final exam if it exceeded 10% without excuse and 15% with excuse.

Module Outline

GENERAL LEARNING OUTCOMES

By the end of the block students should be able to:

- identify the important causes of the following symptoms
  - o pain arising in multiple small joints
  - o pain arising in a solitary large joint
  - o pain and/or paraesthesiae arising in the spine
  - o pain arising in soft tissues
- Take a history considering physical psychological and social aspects.
- Elicit selectively, normal and abnormal physical signs in the musculoskeletal system.
- Use investigations selectively and demonstrate an understanding of the use of radiological investigations with regard to musculoskeletal disease
- Use information sources and appraise evidence as appropriate for musculoskeletal disease
- Formulate and implement management plans with regard to prescribing mild, intermediate and strong analgesics.
- Offer advice for patients whose pain is not satisfactorily controlled by pharmacological agents
- Communicate effectively and sensitively in dealing with patients with chronic musculoskeletal disease; and negotiate, where appropriate, alterations in lifestyle that would be in the patient's best interest
- Identify the extent and severity of injury following trauma
- Perform basic first aid and resuscitative care in a patient with Musculo-skeletal trauma
- Identify and discuss with the patient potential risk factors for further injury and the way they may be reduced
- All of the above tasks should be based on a sound basic knowledge of applied anatomy, physiology and pharmacology.

COMPETENCY CONTEXTS:

COMPETENCY CONTEXT

The student should be able to express the above competencies in the context of:

- Musculoskeletal emergencies
- Chronic inflammatory polyarthropathy
- Autoimmune disease
- Tumours affecting bones
- Metabolic bone disease
- Low back pain, sciatica and radicular pain
- Degenerative joint disease
- Childhood musculoskeletal problems

SPECIAL LEARNING OUTCOME

EMERGENCIES

By the end of these sessions students should be able to:

o Demonstrate when a fracture should be suspected and request appropriate radiological investigations

o Recognise the radiological treatment of fractures in general and the specific features of the common fractures, seeking advice where necessary

o Recognise the radiological features of subluxation and dislocation

o Demonstrate and understanding of how the process of healing may be promoted or retarded

o Describe to a patient the management of the more common fractures

o Recognise an open fracture

o Apply the principles of immediate sterilisation and wound coverage

o Prescribe tetanus toxoid and antibiotics

o Demonstrate an understanding of debridement and chronic osteomyelitis

o Act as part of the team for the management of fractures

o Identify the basic principles of resuscitation in a patient with multiple trauma.

o Recognise associated soft tissue trauma, infection including the possibility of gas forming infective organisms, and initiate appropriate surgical management

o Diagnose nerve and tendon injuries in the hand and leg

o Identify vascular injury in the upper and lower limbs

o Identify injuries needing operative repair

o Discuss management and rehabilitation with the patient

o Recognise the symptoms of acute infection in the joint and stiffness

o Demonstrate the ability to manage the patient presenting with an acute, swollen, inflamed joint

o Initiate diagnostic procedures and treatment

o Recognise the indications for surgical intervention.

CHRONIC INFLAMMATORY POLYARTHROPATHY, AUTOIMMUNE, DISEASE, TUMOURS & METABOLIC BONE DISEASE.

By the end of these sessions students should be able to:

o Demonstrate an understanding of the diagnostic criteria for rheumatoid arthritis

o Understand the differences between rheumatoid arthritis and the Seronegative spond arthropathies, and reactive arthropathies

o Recognize the features of ankylosing spondylitis Recognize the main multi system autoimmune disease Initiate appropriate investigations and management

Discuss with patients the range of treatment options on a risk/benefit basis Recognise the need for surgical assessment

o Identify appropriate referral pathways for early assessment of patients with inflammatory joint disease as well as pathways for involvement of supportive services

o Identify the pathology of bone and soft tissue tumours

o Detect abnormalities on examination and investigation suggestive of bone and soft tissue tumours

o Recognize the importance of staging

o Be aware of the principles of treatment of bone and soft tissue tumours.

o Recognize the conditions leading to metabolic bone disease.

o Recognize and initiate management for hypercalceamia

o Recognize and initiate management for osteomalacia

o Recognize and initiate investigations and management for osteoporosis

o Recognize fracture patterns and the underlying factors predisposing to fractures in the elderly

o Identify appropriate principles for rehabilitation in patients with long-term chronic musculoskeletal disease.

LOW BACK PAIN AND SCIATICA, RADICULAR PAIN, DEGENERATIVE JOINT DISEASE AND CHILDHOOD PROBLEMS.

By the end of these sessions students should be able to:

o Recognise “red flag” signs Recognise “yellow flag” signs

o Distinguish syndromes that are “back pain dominant”

o Perform an appropriate neurological examination

o Distinguish between cervical radiculopathy and upper limb nerve entrapment syndrome

o Be aware of the role of MRI

o Recognize the indications for surgical intervention Outline an appropriate management plan

o Diagnose and assess the severity of degenerative disease of the hip and knee Initiate appropriate investigation

o Outline an appropriate management plan with a multi-disciplinary team approach

o Recognize and detect congenital problems affecting the spine, knee, hip and shoulder

o Examine and initiate appropriate investigations for the child with the painful knee or hip

o Recognize fracture patterns that occur in children

o Be aware of non-accidental injury & know the outline strategy for the handling of such problems.

ANATOMICAL KNOWLEDGE REQUIRED UPPER LIMB

- The nerve roots of the upper limb, one muscle predominantly innervated by each as well as one dermatome reliably supplied by each
- Demonstrating an ability to link anatomical knowledge to X-ray appearances throughout the upper limb
- Shoulder joint, factors influencing stability
- Muscles and tendons of the rotator cuff
- The site and formation of the cords of the brachial plexus
- The origins of the main nerves of the upper limb, median, ulnar, radial.
- The structures of the ante-cubital fossa
- The course of the above nerves in the forearm
- The location of the main nerves at the wrist
- The function in terms of motor supply and cutaneous innervation of the nerves supplying the hand.
- A knowledge of how to test the function of the main nerves and interpretation of the clinical signs found as a result of nerve injury
- Being able to demonstrate the ability to carry out an assessment of the nervous innervation of the upper limb with relevance to suspected open or blunt trauma, nerve root compression.
- To demonstrate an ability to differentiate between upper and lower motor neuron signs in the upper limbs
- To demonstrate the ability to recognise which structures may have been damaged as a result of blunt or penetrating trauma to the upper limb and to test their integrity?

LOWER LIMB

- A knowledge of the nervous innervation of the lower limb, being able to demonstrate the ability to test motor and sensory function and interpret clinical signs
- Demonstrating an ability to link anatomical knowledge to X-ray appearances throughout the lower limb
- The structure and function of the hip joint and muscles responsible for movement
- The clinical anatomy of the Trendelenburg's test

- The course of the main nerves of the lower limb, sciatic (peroneal and tibial), femoral, long saphenous and sural nerves.
- The structure and function of the knee joint, the ligamentous constraints and testing their integrity
- Demonstrate a working knowledge of the muscles that move the foot and ankle
- To understand the structure and function of the ankle ligaments and how to test their integrity
- Being able to demonstrate the ability to carry out an assessment of the nervous
- innervation of the lower limb with relevance to suspected open or blunt trauma, nerve root compression.
- To demonstrate an ability to differentiate between upper and lower motor neuron signs in the lower limbs
- To demonstrate the ability to recognise which structures may have been damaged as a result of blunt or penetrating trauma to the lower limb and to test their integrity.

BLOCK INFRASTRUCTURE

INDUCTION PHASE

It involves 10 days from Sunday of W1 to Thursday of W2.

8:00– 12:00 PM 4 LECTURES (Medical education teaching unit hall & Second hall in Alsadar Teaching)

12:00- 12:30 PM BREAK

12:30- 2:00 PM

SMALL GROUP DISCUSSION (SGD) WITH CASE SCENARIOS

CLINICAL COURSE

It starts from Sunday of W3 till end of the block or Thursday of W8, where a formative assessment will be performed. Fridays and Saturdays are free days.

8:00 – 9:00 PM:

ORTHOPAEDIC MORNING REPORT/ WARD ROUNDS

9:00 -11:00 AM: MORNING ACTIVITY

11:00 – 11:30AM: BREAK

11:30 – 2:00 PM:

AFTERNOON ACTIVITIES

Assessment Method Summary*			
Type *(Examination, Test, Coursework, Presentation, Practical, Other)*	***TD's Outcomes***	***Duration*** *(e.g. 1 hour, 4,000 words)*	***Timing***
Written examinations (a combination of single best answer, constructed response or extending matching questions)	Doctor as Scholar/ Scientist	2x 2 hours	End of term 6.
Objective Structured Clinical Examinations	Doctor as a Scholar/ Scientist Doctor as Practitioner	12 stations	End of term 6.
E-portfolio[†]	Doctor as a Professional		Formative during phase I, summative at end of Phase II

**All learning outcomes described will be tested to a sufficient standard in Phase I to satisfy the requirements of an exit degree.*

Document Version Information

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Approved:

Date: